Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Continental Resources, Inc.
Well Name/Number: Winters 3-35H
Location: SE SW Section 35 T24N R53E
County: Richland **, MT; Field (or Wildcat)** W/C (Bakken Horizontal)

Air Quality

(possible concerns)
Long drilling time: No, 30 to 40 days drilling time.
Unusually deep drilling (high horsepower rig): No, triple derrick, 1000 HP to drill a single lateral Bakken horizontal well, 9617'TVD/19,053'MD.
Possible H2S gas production: Possible slight H2S.
In/near Class I air quality area: No Class I air quality area.
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:
__ Air quality permit (AQB review)
__ Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:

Comments: Using a triple derrick drilling rig to drill a single lateral horizontal Bakken Formation well, 9617'TVD/19,053'MD.

Water Quality

(possible concerns)
Salt/oil based mud: Yes, oil based invert mud system on the intermediate casing string hole and brine water to drill the single lateral horizontal. Freshwater and freshwater mud system will be used on the surface hole.
High water table: No high water table anticipated.
Surface drainage leads to live water: No, nearest drainage is unnamed ephemeral tributary drainage to the North Fork East Redwater Creek, about 1/8 of a mile to the west of this location.
Water well contamination: No, closest water well is about 3/8 of a mile to the south of this location. Depth of this water well is 82'. Surface hole will be drilled to 1350' with freshwater and freshwater mud system. Surface casing will be set to 1350' and cemented to surface to protect ground waters.
Porous/permeable soils: No, silty sandy clay soils.
Class I stream drainage: No Class I stream drainages in the area.

Mitigation:
X Lined reserve pit
X Adequate surface casing
__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other:

Comments: 1350' of surface casing appears to be short to cover the base of the Fox Hills Formation. Recommend 1400' of surface hole be drilled and 1400' of surface

casing be run and cemented to surface to protect freshwater zones and to cover the Base of the Fox Hills Formation.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: No, stream crossings anticipated.
High erosion potential: No, small cut, up to 8.2' and small fill, up to 9.5', required.
Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.
Unusually large wellsite: No, large wellsite, 500'X270' location size required.
Damage to improvements: No surface use is cultivated land.
Conflict with existing land use/values Slight

Mitigation
__ Avoid improvements (topographic tolerance)
__ Exception location requested
_X_ Stockpile topsoil
__ Stream Crossing Permit (other agency review)
_X_ Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
X Other: Requires DEQ General Permit for Storm Water Discharge Associated with Construction Activity, under ARM 17.30.1102(28).

Comments: Access will be off of an existing county road #317 and will upgrade 2840' of existing two track road into this location. Drill cuttings will be disposed of in the lined reserve pit. Oil based invert drilling fluids will be recycled. Completion fluids will be trucked to a commercial Class II disposal. Pit will be backfilled after remaining fluids have evaporated. No special concerns.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: No buildings or residences within 1 mile of this drilling location.
Possibility of H2S: Slight chance of H2S.
Size of rig/length of drilling time: Triple drilling rig 30 to 40 days drilling time.

Mitigation:
_X_ Proper BOP equipment
__ Topographic sound barriers
__ H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other:_____

Comments: Adequate surface casing and operational BOP should mitigate any problems. No concerns.

Wildlife/recreation

(possible concerns)
Proximity to sensitive wildlife areas (DFWP identified): None identified.
Proximity to recreation sites: None identified.
Creation of new access to wildlife habitat: No new access to wildlife habitat.

Conflict with game range/refuge management: No conflict with game range/refuge management.
Threatened or endangered Species Listed threatened or endangered Species in Richland County, Piping Plover, Interior Lease Tern, Whooping Crane and Pallid Sturgeon.

Mitigation:
__ Avoidance (topographic tolerance/exception)
__ Other agency review (DFWP, federal agencies, DSL)
__ Screening/fencing of pits, drillsite
__ Other:_____
Comments: Surface location is a cultivated field with no live water close to this location. No threatened or endangered species identified within this area. No concerns.

Historical/Cultural/Paleontological

(possible concerns)
Proximity to known sites None identified.
Mitigation
__ avoidance (topographic tolerance, location exception)
__ other agency review (SHPO, DSL, federal agencies)
__ Other:_____
Comments: Private cultivated surface land. No concerns.

Social/Economic

(possible concerns)
__ Substantial effect on tax base
__ Create demand for new governmental services
__ Population increase or relocation
Comments: Existing spacing unit with exiting producing wells. This is a development well to the existing spacing unit. No concerns

Remarks or Special Concerns for this site

Well is a 9617'TVD/19,053'MD single lateral Bakken Formation horizontal development well in Richland County, Montana.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the

human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): \s\Steven Sasaki
(title:) Chief Field Inspector
Date: March 31, 2010

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)
Richland County water wells
(subject discussed)
March 31, 2010
(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Richland County
(subject discussed)

March 31, 2010
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: _____
Others present during inspection:_____